

International Conference on Mathematics in (bio/food)Chemical Kinetics and Engineering (MaCKiE) 2025

September 3-5, 2025 // Altın Yunus Hotel & Spa // Çeşme (Izmir), Türkiye



SUBMIT YOUR ABSTRACT

ABSTRACT DEADLINE: Friday 6th June, 2025 11:59 (UTC+03.00)

MaCKiE 2025 is the eleventh event of the series, with previous meetings in Ghent, Houston, Heidelberg, Chennai, Budapest, Shanghai, and Berlin. Since its first event in 2002, the MaCKiE conference has been organized once every two years. The meeting aims to bring together scientists and engineers interested in the application of mathematical modeling to describe physicochemical phenomena in chemical and biological processes.

MaCKiE 2025 offers an unforgettable adventure to ancient city of Troy on September 6, 2025.

MEET KEYNOTE & PLENARY SPEAKERS



Duygu DİKİCİOĞLU
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University of Oslo, Norway



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Indian Institute of Technology
Delhi-Abu Dhabi, UAE

Learn More

www.mackieturkey.com

Please see the website for up-to-date information for MaCKiE 2025.

General Chair

Guy B. MARIN
Grigoriy S. YABLONSKY

Organizers

Abhishek DUTTA

Co-organizers

Kevin Van GEEM
Necip Berker ÜNER

Scientific Committee

Aniruddha Majumder
Dmitry Murzin
Kai Sundmacher
Nuno Reis
Rodney Fox
Vahide Nuran Mutlu
Vivek Ranade
Wenli Du
Yi Ouyang

Themes of MaCKiE 2025

- Applied Kinetic Modeling and Microkinetic Models
- Ab initio-based Kinetics or Stochastic Processes
- Multi-scale Modeling in Kinetics and Transport
- AI based (bio/food)Chemical Engineering Models and Applications
- (Bio/Food)Chemical Reaction Mechanisms and Process Design
- Modeling Sustainable Processes: Electrification and Decarbonization



We look forward to seeing you next September!
Get excited for:

- A one-day hands-on tutorial in reactor modeling using OpenFOAM
- Oral and Poster presentations
- Plenary and Keynote presentations given by worldwide leaders
- Evening "Quiz" sessions
- Strong student participation with Student Paper and Poster Awards



MACKIE 2025 Conference

3-5 SEPTEMBER, 2025

THEMES

EXPANDING THE FUNDAMENTALS

Applied Kinetic Modeling and Microkinetic Models
Ab initio based Kinetics or Stochastic Processes

RESOLVING COMPLEXITY

Multi-scale Modeling in Kinetics and Transport
AI-based (bio/food)chemical Engineering Models and
Applications

APPLICATION TO NEW PROCESSES

(Bio/Food)Chemical Reaction Mechanisms and Process
Design
Modeling Sustainable Processes: Electrification and
Decarbonization

ALTIN YUNUS HOTEL & SPA
ÇEŞME (İZMİR)



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MACKIE 2025 Konferansı

3-5 EYLÜL, 2025

TEMALAR

TEMELLERİN GENİŞLETİLMESİ

Uygulamalı Kinetik Modelleme ve Mikrokinetik Modeller
Ab initio Temelli Kinetik veya Stokastik Süreçler

KARMAŞIKLIĞIN ÇÖZÜLMESİ

Kinetik ve Taşıma Süreçlerinde Çok Ölçekli Modelleme
Yapay Zeka Tabanlı (Biyo/Gıda) Kimya Mühendisliği Modelleri
ve Uygulamaları

YENİ SÜREÇLERE UYGULAMA

(Biyo/Gıda) Kimyasal Reaksiyon Mekanizmaları ve Süreç
Tasarımı

Sürdürülebilir Süreçlerin Modellemesi: Elektrifikasyon ve
Karbonsuzlaştırma

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